



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/551,487	09/29/2005	Karsten Eichhorn	68897-011	3671
29493 7590 11/13/2007 HUSCH & EPPENBERGER, LLC 190 CARONDELET PLAZA SUITE 600 ST. LOUIS, MO 63105-3441			EXAMINER SHALLENBERGER, JULIE A	
			ART UNIT 2885	PAPER NUMBER
			MAIL DATE 11/13/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/551,487

Applicant(s)

EICHHORN ET AL.

Examiner

Julie A. Shallenberger

Art Unit

2885

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 August 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 November 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 8/28/07 has been entered.

Drawings

The drawings are objected to under 37 CFR 1.83(b) because they are incomplete. 37 CFR 1.83(b) reads as follows:

When the invention consists of an improvement on an old machine the drawing must when possible exhibit, in one or more views, the improved portion itself, disconnected from the old structure, and also in another view, so much only of the old structure as will suffice to show the connection of the invention therewith.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings

for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

The drawings appear to be a piecemeal representation of the claimed invention. It is unclear how all the drawings relate to one another, and how all the elements of the claimed invention relate to one another and work together as a whole. An isometric view showing all the claimed elements is highly recommended.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-14 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In regard to claim 1, "an edge" is an element feature, but it is unclear to what element it is referring.

In regard to claim 2, it is unclear what is meant by the limitation "on whose side facing away from the bottom side runs the edge".

In regard to claims 4 and 5, "and/or" is improper claim language.

In regard to claim 6, "the edge wall" lacks antecedent basis.

In regard to claim 11, it is unclear what is meant by "at least one other portion" in lines 10 and 11.

In regard to claim 13, it is unclear what is meant by "one of said first or second spaced relations of said edge with said perimeter is substantially adjacent".

In regard to claim 14, "said housing" lacks antecedent basis.

The claims have been examined as best understood.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5, 10, 11, and 13-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Biebl (6,375,340).

In regard to claims 1 and 16, Biebl teaches a lamp comprising a planar luminous panel 8 having a plurality of luminous chips 6 arranged in a common recess facing the direction of light emission (fig. 2), an optical element 9, and an edge in special arrangement to the luminous chips such that a predetermined luminance gradient in a light distribution of the lamp is formed in the region of the edge.

In regard to claim 2, Biebl teaches the recess is trough shaped with an edge wall that runs perpendicularly to the direction of light emission of the luminous panel and

stands up from a bottom side of the recess and faces away from the bottom side defines the edge (figure 2).

In regard to claim 3, Biebl teaches the edge runs peripherally in a plane perpendicularly to the main direction of emission of the luminous panel (fig. 2).

In regard to claim 4, Biebl teaches the shape of the side wall in combination with the optical element produces a predetermined luminance distribution.

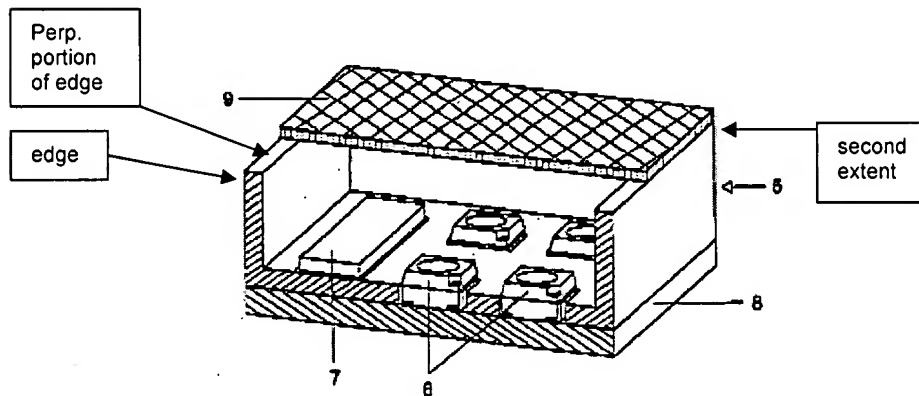
In regard to claim 5, Biebl teaches an edge wall and the recess have a rectangular segment in a top view (figure 2) and the edge has a break for forming a light dark boundary (corner section).

In regard to claim 10, Biebl teaches the planar luminous panel 8 integrated in a luminous plate 5 wherein the recess is set in a front side of the luminous plate and a front side running perpendicular to the direction of light emission.

In regard to claims 11 and 15, Biebl teaches a lamp with a luminous panel 5, a base 8, a luminous chip 4 having a perimeter and a first extent located within the recess of the luminous panel, an edge portion having a second extent in the direction of illumination which is further from the base than the first extent, the luminous panel having a first spaced relation (left side) with said perimeter of the chip and another portion in a second spaced relation with the said perimeter (front, back, or right side) wherein the edge limits light distribution to be contained within the region of the edge.

In regard to claim 13, Biebl teaches front, back, and right sides of the edge as well as the lower portions are all adjacent to chip perimeters (see figure 2).

In regard to claim 14, Biebl teaches a first spaced relation of a panel's edge (left) with the perimeter of a chip causing a first luminous gradient and second spaced relation (front, back, or right side) of the edge with the perimeter creating a second luminous gradient.



Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Biebl in view of Mizutani (5,808,592)

Biebl teaches the invention described above, but lacks the teaching of the chips arranged directly adjoining at least the edge wall comprising the edge producing the light dark boundary.

Mizutani teaches luminous chips with are adjoining an edge creating a light dark boundary (figures 9B).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the LEDs adjoin the edge in order to fit more LEDs without having to increase the size of the lamp.

Claims 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Biebl in view of Wang (2004/0164675).

Biebl teaches the invention described above, but lacks the teaching of the recess being filled with a light-converting material integrated as a cast which covers the recess.

Wang teaches a light-converting material 16 which covers a recess (made by walls 25) where diode 10 is located (see figure 6).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use colored LEDs that are converted into white light using a light-converting material in order to reduce the cost of the LEDs used in the lamp device.

Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Biebl.

Biebl teaches the invention described above, including the embodiment of figure 2, but does not teach a reflective coating in that embodiment. However, Biebl teaches a reflective coating (aluminum and/or copper) layer on the support 3 (col. 3 lines 37-41).

Reflective coatings are well known and used in the art of illumination, and it would have been obvious to one of ordinary skill in the art at the time the invention was made to add a reflective coating in order to project more light toward the output and thereby increase the overall efficiency.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Biebl in view of Lin (5,419,065).

Biebl teaches the invention described above, but lacks the teaching of the panel having a triangular shape.

Lin teaches a triangular shaped panel (figure 1).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to make the panel in the shape of a triangle in order to limit the light output to match the desired shape.

Response to Arguments

Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julie A. Shallenberger whose telephone number is (571)272-7131. The examiner can normally be reached on Monday - Friday 830-5.

Application/Control Number:
10/551,487
Art Unit: 2885

Page 9

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jong-Suk (James) Lee can be reached on 571-272-7044. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

JAS
AU 2885



JONG-SUK (JAMES) LEE
SUPERVISORY PATENT EXAMINER